



Atty. Dkt. No. 017346-0173

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Nicholas AYACHE et al

Title: APPARATUS FOR SIMULATING  
THE DEFORMATION OF  
MATERIALS, NOTABLY OF SOFT  
BODY TISSUES

Appl. No.: Unassigned

Filing Date: 02/04/2002

Examiner: Unassigned

Art Unit: Unassigned

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination of the above-identified application, Applicant respectfully requests that the following amendments be entered into the application:

**IN THE CLAIMS:**

In accordance with 37 C.F.R. § 1.21, please substitute for original claims 3-5, 8, 10, 12 and 14 the following rewritten version of the same claims, as amended. The changes are shown explicitly in the attached "Version With Markings to Show Changes Made".

3. (Amended) Apparatus according to claim 1, characterised in that, for an object of solid three-dimensional shape, the grid pattern chosen is tetrahedral, so that the computer is able to estimate the composition of the forces at each vertex of the tetrahedron, as a function of the deviation between the current length of each edge of the tetrahedron and the length of this edge at rest.

4. (Amended) Apparatus according to claim 1, characterised in that the computer is adapted to determine differences between the squares of the current length